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ABSTRACT

Four education experts stress the need to plan urban communities of the future that will guarantee the quality of human existence. John Sandberg emphasizes the desirability of cooperation among all planning agencies, and presents guidelines to aid in comprehensive urban planning. McAbee, Bottomly, and McCloskey list the qualities of human existence they feel planners must treat as objectives. According to these experts, urban communities must be designed to meet the physical, social, educational, and aesthetic needs of people, who must have decent environments to participate productively in decisions about their futures. Kenneth Hansen reviews some models of planning and implementation, such as systems approaches, and concludes that any planning model must consider priorities, alternatives, means, and implementation. Lyndon Musold concludes the document with guidelines for the development of an information system to be used in community planning. (RA)

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SCHOOLS AND COMPREHENSIVE URBAN PLANNING

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PREFACE

Northwest Cities

There will be new families of cities in the Northwest
built by mortals who value beauty, decency and gaiety.

Together, enlightened men will assess and cherish
the grandeur of the earth's most immense ocean,
mountain ranges, rivers, forests, storms and sun.

They will probe plain and mystic facts
testifying to human potentials and the majesty of what man can become.

They will ask what qualities and dimensions of living
fulfill years of growing, learning, love, toil, delight, repose?
What enriches daily routine?
What enhances leisure?
How can we actualize the promises of childhood, youth, maturity?

They will seek and ponder grand concepts of community.
They will quest fresh designs unifying homes, cathedrals, parks, schools
and highways of land and sky into physical and spiritual patterns
that nurture achievement and self-respect.

Then they will mobilize their brains and bulldozers
and automated factories
to build cities for mankind.

Gordon McCloskey

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Seattle Superintendent of Schools Forbes Bottomly initiated discussions generating concern for comprehensive school and community planning in the Puget Sound area and is coauthor of "Urban Planning Objectives."

Washington State Superintendent of Public Instruction Louis Bruno urged formulation of a task force and made available the assistance of his associates, Warren Burton and Alan Metcalf.

Robert McAbee, Director of the Puget Sound Governmental Conference, is coauthor of "Urban Planning Objectives." He and his associates, Wilfred Stockwell and Hal Masco, arranged exploratory meetings with representatives of other public agencies and have facilitated educators' working relationships with planning agencies.

Donald Kruzner, King County (Washington) Superintendent of Schools, and Carl Jensen, Highline Superintendent of Schools, were leaders in encouraging their fellow school administrators to participate in deliberations crystalizing these ideas.

Kenneth H. Hansen, Professor of Education at Washington State University, prepared the section, "Planning Models."

Lyndon R. Musolf, Director of the Urban Studies Center at Portland State University, wrote the section, "Guidelines for Development of an Information System for Urban Community Planning."

Gordon McCloskey, Professor of Education at Washington State University, coordinated the conferences and deliberations from which this document is derived and is the coauthor of "Urban Planning Objectives."

To William Ellena of the American Association of School Administrators; Jack Culbertson, Executive Director of the University Council for Educational Administration; and Roy K. Wilson, Executive Secretary of the National School Public Relations Association, we owe special thanks for hard-hitting counsel shaping the practicality of this effort.

Large thanks is due the statesmen, behavioral scientists, urban planners, educators and architects whose work is noted in our references. We also acknowledge our immeasurable debt to their thousands of predecessors and associates whose centuries of thought serve as a base for this document.

The editor and contributors take full responsibility for the content and limitations of ideas on these pages.

John Sandberg

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INTRODUCTION

The Northwest Regional Educational Laboratory seeks to assist local and state school systems improve education for all of the region's youth. In two of our major programs we work with urban school systems to help speed educational improvements. A third program provides similar assistance for rural schools.

While most Laboratory work is focused on improvements that can be made directly by school and college faculties and boards, we welcome the growing awareness that improvement commensurate with present day needs and feasibilities requires more cooperative long-range planning by educators in association with other public and private agencies. Consequently, we seek to help educators implement their desire to participate in comprehensive community planning.

Educational administrators recognize the need for more adequate "planning." The work of thousands of local, state, regional and national committees and commissions represent an unprecedented effort to make planning as humanly productive as it can be. The experience of those groups indicates cooperative work with other planning agencies can increase the efficiency of educational planning and enlarge results.

The Laboratory hopes that this summary of old and new thought will serve as a partial guide for speeding such effort.

CONCEPTS WIDELY USEFUL

The ideas summarized in this document are focused mainly on the needs and feasibilities in "metropolitan" areas. By "metropolitan" we mean geographic areas in which the economic-social life and the governmental problems of municipalities and counties are already closely interrelated or are becoming so. We have focused on metropolitan planning concepts because planning in such areas is particularly urgent and complex.

However, many of those concepts are equally useful to educators and other citizens living in small communities. While their relationships with other local governments may be less direct than those in metropolitan areas, many of the ideas reviewed here will be useful to them.

PRACTICABILITY AND FEASIBILITY

We have focused on concepts and goals demonstrated to be feasible. All have been implemented to some degree by some city or metropolitan region. We feel such demonstrations of practicality are evidence that further implementation is practical.

Some of the processes explored here are admittedly complex. Some people may feel implementation is beyond present capabilities. If so, that is cause for more efforts to enlarge those capabilities. Awareness of what is feasible is one basic step in that process.

We are particularly concerned with relationships and procedures that will help us plan better here in the Northwest. But the ideas assembled here are equally useful in other regions.

Massive bodies of research demonstrate pupils' educational needs and achievements are influenced by their housing, neighborhood environments, health, recreation and family incomes.

The substance of this document has grown from three years of deliberation by educators, urban planners and professional people who direct housing, health, recreation and welfare programs.

With the help of graduate students at Portland State University's Urban Studies Center, the University of Washington and Washington State University, we have reviewed and distilled 3,000 years of thought about ways urban communities and public services can be planned to better serve human needs.

Population and economic growth forecasts indicate accelerated urbanization. Hundreds of recent studies point to new educational needs, problems and potentials inherent in metropolitan growth. Clearly, the processes by which both needs and problems can be met are influenced by all aspects of urban planning. To maximize benefits inherent in urbanization, comprehensive interagency planning is urgent.

We are confident this document can help school administrators and boards establish closer working relationships with local, state and regional planning agencies, and stimulate development of systems for obtaining information essential for effective educational and community planning, management and evaluation.

We believe it is particularly urgent that school administrators and boards in metropolitan areas develop cooperative working relationships with the Regional Association of Governments which help coordinate the plans of municipalities and counties in metropolitan areas.

Two years ago, the Laboratory requested a steering committee to explore ways of facilitating some next steps in comprehensive school-community planning. The committee is composed of the state school superintendents of Washington and Oregon, school superintendents of Seattle and Portland, and a university professor.

The steering committee has obtained the advice of representatives of the following educational associations:

American Association of School Administrators

Washington (State) Association of School Administrators

National School Public Relations Association

University Council for Educational Administration

Washington Education Association

To initiate working relationships essential for a cooperative effort, our steering committee has established initial working relationships with the Puget Sound Governmental Conference and the Columbia Regional Association of Governments.

We have explored the desirability of this joint effort with school superintendents in the Puget Sound and Portland metropolitan regions. They overwhelmingly endorse the effort and desire to participate.

We have conferred with Seattle and Portland Model Cities Directors regarding the desirability and feasibility of a joint effort to provide facts both they and educational administrators need for program planning, management and evaluation. They strongly endorse cooperative effort and have signified their desire and intent to pursue joint effort.

We have discussed the desirability and feasibility of joint educator-planning agency effort with the Puget Sound Governmental Conference and the Columbia Regional Association of Governments. The Puget Sound Governmental Conference is presently engaged in collection of facts about population trends and mobility income, housing, health and recreation facilities, and transportation for overall urban planning. Those staffs welcome the opportunity to discuss ways they can help make such facts available to educational administrators and boards. They also suggest school administrators make joint plans to provide them with facts that will help the local governmental units they serve to give adequate consideration to educational matters and to related health, recreation and public assistance developments.

This document has grown from the thought and judgment of those participating in the above effort.

Lawrence D. Fish
Executive Director
Northwest Regional Educational Laboratory

HERITAGE AND PURPOSE

John Sandberg

RESOURCES AND FEASIBILITIES

Concepts of planning are as old as man's attempts to look ahead and to arrange actions in sequences intended to enlarge human satisfactions. For centuries tribal chiefs, kings, parliaments, social scientists, architects, information specialists, technologists and others have been refining and planning concepts and procedures. Primitive men planned strategies for communal hunting. Ancient tribal councils planned villages and battles. With imperial authority emperors planned cities, highways, water systems, tax schedules and long-range programs of political and military conquest. Today, representative governments seek planning processes reflecting concern for a diversity of citizen interest, preference and judgment. The basic idea is old. Many concepts and processes are new. (15)

As societies became more specialized and interdependent, systematic planning became more essential and processes became more complex. Today, both private and public agencies recognize purposeful planning as an essential aspect of responsible and efficient performance. With good reason they are seeking more adequate planning concepts and more fruitful procedures.

In recent years there has been a growing concensus that educational services, housing, health, welfare, recreation, employment, income and industrial developments are closely interrelated and that productive use of

effort and funds requires new dimensions of interagency planning. The growth of local, state, regional and national planning agencies and coordinating councils is a response to that awareness. (15)

The ideas presented in this document are presented in a framework of four considerations.

> In what ways do urban environments influence the satisfactions people derive from life? What are present day potentials for creating humanly satisfactory urban environments? Utilizing modern technology, what is possible; what is actually within our grasp?
>
> How can we determine priorities? With regard for human rights and needs, what kinds of planning efforts appear to be of most human worth?
>
> What alternative choices do modern capabilities and informed judgment give us?
>
> What are some practical next steps toward adequate planning?

To provide perspective and to avoid impracticalities, the utopias of Plato, Thomas More, Francis Bacon, Tomasso Campanella, H. G. Wells and others have been reexamined. Those concepts reflect the aspirations of many men and a regard for human well-being. But, as the record shows, they were oversimplified efforts to escape the realities of interrelationships which were even then emerging from relatively simple technological and socioeconomic developments. Next steps for productive effort cannot be built on those concepts. Instead, all of the complexities involved in improving existing urban communities and creating better new ones should be confronted.

The diverse interests of many groups must be considered and reconciled. Furthermore, it is assumed more widespread access to facts about needs and potentials will help all citizens and public servants perceive alternatives and make choices most likely to promote their interrelated interests. (3) (14) (16) (18)

Of course, planning goals and procedures can be as diverse as human intent and technical capability. As recent history demonstrates, planning technology can be misused for humanly detrimental purposes. With those dangers in mind, urban planning is defined as processes by which people systematically appraise goals, formulate procedures and sequence actions intended to make the future more satisfactory for all citizens.

Modern Planning Capabilities

Much better urban planning is feasible. Public and private enterprises have access to old and new concepts of ways for planning to optimize benefits and to reduce delay or waste. Rapid developments in recent years demonstrate that improvement is a matter of will. (16)

All public agencies and private enterprises have access to ever larger material and intellectual resources for creation of environments and services that can elevate levels of living. New technological and economic developments make it practical to plan for larger goals. Modern sources of mechanical power and automated production provide unparalleled capacity to improve physical environments. Those resources free steadily larger percentages of the population for performance of services; they also increase time and facilities available for enriched leisure. At international conferences responsible financiers constantly devise new means of making supplies of money and credit more congruent with these growing productive capacities. (2) (8) (13)

Impact of Enlarged Information Resources

Recent improvements in mechanisms for obtaining facts facilitating more precise definition and prediction of needs, priorities and feasible goals constitute

a major difference between old and new capabilities to plan humanly satisfactory communities. Until recently, data collection was relatively cumbersome and slow. Most planning had to be based on relatively rough estimates of conditions and trends. Now, behavioral science constantly provides better concepts for identification and measurement of psychological, social and physical factors affecting human well-being. Steadily, improvements in methods of prediction enlarge the ability to foresee long-range needs. With computers such information can be made readily accessible. (1) (5) (6)

The Twentieth Century Fund, the American Management Association and the Institute for Public Administration are among the many groups devising improvements in planning techniques. The Massachusetts Institute of Technology. the Harvard University Joint Center for Urban Studies, the Council of State Governments and the U. S. Department of Housing and Urban Development are among agencies pioneering the design of systems for obtaining information essential for effective planning and management. Ready access to this immense capacity to plan, build and govern better cities implies a moral obligation to do so. (12)

Fortunately, individuals, groups and communities are demonstrating an enlarged desire for coordination of planned effort. This can yield immense human benefits and speed design of still more adequate planning processes.

Objectives

Education, like other public service, aims to enlarge free peoples' capabilities to enhance the quality of their lives. Such capability involves competencies and arrangements that facilitate performance of basic living functions.

Education, along with other public and private services, has an obligation to create circumstances and perform services which enable people to nurture their diverse capacities to produce, consume, fulfill civic and ethical responsibilities, care for families, continue to learn, play and rest. But in interdependent technological societies, other specialized agencies engaged in improvement of housing, health, economic security and recreation also contribute to fulfillment of those objectives. (11)

The novel educational needs and problems confronting expanding metropolitan communities are evident. The processes for meeting both needs and problems are being influenced by major changes in the nature of industry and commerce, municipal boundaries, local and county government structures, tax bases, socioeconomic characteristics of populations, and the enlarged aspirations of many citizens. The adequacy of education also is influenced increasingly by the decisions of regional, state and local planning agencies which are utilizing new techniques to perform new functions.

In those circumstances there is urgent need for actions which:

> Facilitate interagency communications to aid in identifying interrelated goals and mutually beneficial working relationships.
>
> Activate joint thought and effort necessary to obtain data which interrelated agencies need for planning, program management and evaluation.

Both experience and reason indicate that pursuit of those goals can:

> Help agencies better perceive the interrelationships of the human purposes they avow to pursue.
>
> Facilitate functional definitions of specific goals, feasibilities, priorities and interagency working relationships.

Activate development of ongoing systems for obtaining facts essential for effective planning and management.

On a suitable grid or neighborhood basis, give educational planners access to the socioeconomic facts that can best be assembled by planning agencies. Examples are population projections, racial characteristics of populations, substandard housing, occupational patterns, employment, average family income, health deficiencies, welfare service loads, educational levels of parents, delinquency, public recreation services and facilities, and crime. Such facts can help educators better define specific educational needs.

Create systematic procedures for local and state school systems to help provide planning agencies with facts they need to plan educationally related housing, health, recreation and welfare services. Examples are dropout rates, absenteeism, pupil achievement levels, pupil health and school land needs.

Hazards

Some thoughtful administrators note the hazard that interagency discussion of goals, functions and working relationships could generate. They contend it would hamstring initiative and impede progress. That hazard is real. It should be confronted candidly. But the inescapable interrelationship of agency programs must be recognized. The exact nature of productive interagency relationships remains to be analyzed. Doing so with mutual respect and goodwill will help all agencies fulfill their responsibilities in ways that enlarge results. Let's proceed.

UNDERGIRDING VALUES

Selection of planning goals involves consideration of priorities. This implies consideration of values. Indeed, responsible planners have an obligation to assess the human worth of old and new values. They refrain from imposing their personal values on a community. They seek to protect diversity of views

and to foster new values that can evolve from changing circumstances and enlarged perceptions of what is possible. They seek to provide elected officials and other citizens with facts and concepts of alternatives that facilitate enlightened judgment and choice.

Enlightened planners are aware that values are abstractions lacking precise definition. They know that often values function mainly at subconcious levels. But inevitably values influence goals and actions and serve as moral bases for responsible definitions of purpose. So quite candidly, the concepts set forth in this booklet reflect the following values derived from assessment of human experience and feasibilities inherent in better use of modern resources. (9)

Regard for Human Well-Being

Urban planning goals and processes should be rooted in a regard for human well-being and intent to enhance the quality of life. Morally acceptable planning goals and procedures must be selected with intent to enhance free peoples' opportunities and abilities to live well. (4)

The worth of physical environments, economic developments, social arrangements and political processes can be measured largely in terms of the degrees they contribute to human satisfactions and dignity. For that reason, this document synthesizes ideas and procedures intended to help individuals and communities utilize their talents, time and resources to live better. Responsible people can aim at nothing less.

History clearly records the fact most American and European cities developed quite haphazardly, influenced largely by efforts to produce and exchange whatever commodities and services evolving technology made possible. (10)

For the past two centuries, numerous persons and commissions have noted indiscriminate response to technological possibilities does not automatically improve life for all people. For example, some uses of technology have resulted in pollution of water and air to degrees that threaten industry, health and aesthetic decency. Traditionally, "economic" development of urban housing has produced slums generating poverty, alienation, despair, hostility and violence. This generation of adults has witnessed the terrifying extent to which Nazi societies, with slight regard for human values, deliberately used technical, economic and political power for mass murder of minorities and for conquest that threatened the well-being of the entire Western world. (7) (9)

Jacob Buckhard, in his mid-nineteenth century essay on force and freedom, noted the threats to human well-being evolving from indiscriminate use of technology. More recently, Lewis Mumford (9) and the Rockefeller Foundation (13) are among the hundreds of perceptive persons and groups noting that in many respects modern societies are using mechanical power and technical knowledge in ways that undermine the quality of life and make it less meaningful. This is proving so even for millions who are relatively secure and affluent.

Seldom has one technological development been pursued in relationship to another. Mass production factories have been designed with slight consideration for housing the masses of workers and their families. Current demonstrations of indifference, alienation and protest are predictable results. Excellent technicians developed mechanical tractors, mechanized cotton pickers and industrialized farms. But cities prepared poorly for the millions of displaced rural families who now seek employment and some fragment of hope in urban ghettos and factories.

Quite properly, development of a fertile technology continues. But necessary schooling has not been planned to prepare youth for earning incomes in technological occupations. (2) (16)

Each day, new evidence indicates the extent growing percentages of both affluent and poor citizens--young, middle-aged and elderly--are protesting and disengaging themselves from values and arrangements they perceive to be of little worth to them. In most parts of the world even economically secure youth question the goals of "the establishment"; less affluent youth see slight opportunity to become a part of it.

Planners, administrators and educators dare not concede that these conditions are the inevitable results of urbanization, or that the existing circumstances are beyond improvement. Technology, or the social-economic institutions it has fostered, cannot be rejected or abandoned. Instead, the new powers created by technology and an enlarged public must be used to pursue more satisfactory goals.

During the twentieth century concern for the quality of life in cities has increased. And fortunately, in spite of serious inadequacies, governments of the earth's major nations have been unprecedentedly receptive to new ideas and more adaptive than at any time in history. Philosophies of humanism and reason and a growing respect for the "scientific method" have helped make them so. Those influences continue to generate new perceptions of possibilities and potentials. Constantly, and properly, statesmen, social scientists and hundreds of organizations set forth "new proposals." Some less privileged citizens, ethnic minorities and youth do so with unprecedented vigor.

Concepts presented in this document recognize the nature and extent of the frustration and protests presently creating anxieties in cities. An abundance

of evidence suggests most of those protests are rooted in inadequacies of past planning or in new perceptions of what is now possible. Proposals made in the following pages are based not on desperate reaction to fear, but on the analysis of what can and should be done even if citizens were complacent.

Evidence at hand demonstrates that at this time humanistic planning is particularly timely and feasible. Behavioral sciences, health technology and architectural concepts are being utilized to plan "model cities" intended to provide more humanly satisfactory combinations of housing, health, education, social services, privacy, recreation and rest. Localities, states and regions <u>are</u> planning better use of technology to assure clean water and air. Processes are not yet perfected, but progress demonstrates such goals are practical. With continued concern for human values, modern technology can be used to yield more satisfactory results. This document is intended to help citizens and leaders proceed with that urgent work. (15)

<u>Progress Is Worthwhile</u>

It is assumed progress is of worth and improvement implies enlightened change. Certainly, in the United States, the historic durability of this belief is clear. Intent to live differently and better impelled the American migration of our European forefathers. Since 1620 Americans have been settling <u>new</u> land, building <u>new</u> cities, inventing <u>new</u> machines, producing <u>new</u> commodities and experimenting with <u>new</u> concepts of self-government. Change is no stranger here. American history could be conceived as a record of massive change--often impetuous, sometimes extravagant and reckless. But so far, "change" and "progress" have been fostered and valued as doorways to hope, new opportunity and enlarged satisfactions.

Likewise, in other parts of the world there is an unprecedented search for public and private means of improving living conditions. Witness news reports of ferment in the Orient and Asia. Even in Africa and the somnolent south seas, people quest ways to provide themselves with modern housing, transportation, health service and education.

GUIDES FOR COMPREHENSIVE SCHOOL-COMMUNITY PLANNING

School Administrators' Roles

School administrators can, and should, exercise a share of leadership in development of community planning procedures that establish closer relationships between educational plans and agencies planning housing, recreation, health, public assistance and transportation. This opportunity, and responsibility, grows from well-recognized facts that those aspects of community life have major impact on pupils' learning; on the nature of productive instruction, counseling and other pupil services; and on proper location of school facilities.

Effort to exercise such leadership implies careful consideration of circumstances and processes involved. Analyses show many public services presently are fragmented into artificially separate categories. The numerous local and state agencies assigned specialized, but interrelated, responsibility for housing, public assistance, health service, recreation facilities and sewage disposal are examples. The current growth of local, state and regional interagency councils and planning commissions represents honest effort to attain efficiency and benefits inherent in more coordinated effort. Those efforts embody rational intent, but experience shows effective cooperative working

procedures depend heavily on the perceptions and attitudes of people involved. Analyses of achievements and difficulties indicate some procedural guidelines helpful to school administrators and others.

Some Procedural Guides

Become familiar with, and respect, the responsibilities, functions and limitations of other agencies. Most of them have been quite deliberately set up to perform functions the general public or influential groups perceive to be desirable. Most public agencies exercise some authority rooted in law. In most cases, law permits considerable discretionary latitude with respect to work with other agencies, but some personnel are sensitive about dilution of their authority. Regardless of personal insight or preference, the degrees to which agency staffs can modify their work or coordinate it with other agencies may be limited. In any case, full awareness of agency functions is an essential base for honest discussion of productive working relationships.

Be aware that very sincere agency directors and employees may be apprehensive that joint planning and cooperative effort may complicate or "hamstring" their plans and efforts to provide services they perceive to be of worth. Keep in mind the fact that many directors and employees have struggled for years to develop and protect their service programs. In good conscience, most of them have sought to organize their work in ways they deem best. Quite naturally, the best and most responsible among them have developed admirable senses of identity and loyalty. Quite understandably, some also may have acquired unrealistic and defensive senses of propriety right.

Also keep in mind that in recent years the personnel of many agencies have experienced "reorganizations" which have required what they perceive to be disconcerting disruptions of their plans and organizations. Often this has been accompanied by reassignments or dismissals that have threatened their personal security. They may fear repetition of such experiences.

Assess the limitations of the time agency directors and staffs have for discussions of interagency planning. Most directors and personnel are busy. Naturally, those who are creative and responsible tend to use unoccupied hours to improve work within their own organizations. At best, taking time to consider the goals and work of other agencies requires generosity of spirit and considerable self-discipline.

Become accurately informed about the functions of municipal, county, regional and state planning agencies and their working relationships. Their respective roles are not always clearly defined. Some compete for authority. Their relationships to elected governing bodies also vary. In general, they are created under state enabling legislation by municipal, county or state governments to provide facts or to formulate recommendations for consideration by those bodies.

Get acquainted with individual staff members. Some are more interested in education than others, and as in other realms of public service, some are more active and exercise more leadership than others.

Recognize the value of informal exploration of mutual interest and responsibility. Productive working relationships usually originate from the personal interchange of mutual interests. They are seldom derived from law. Authority cannot command disinterested people to want to modify their working relationships.

Productive interagency relationships are best generated by free discussions that enable all parties to express personal views and to reach sincerely mutual conclusions about what is useful. By that process of personal affirmation, they crystalize a will to coordinate their plans and daily work because they believe doing so will be beneficial. Such voluntary committment sets the stage for the many adjustments involved in closer working relationships.

Realistically assess potential conflicts and incompatibilities. Analysis of records and experience can provide forewarnings of differences in group goals or opinions that will influence citizen participation and public acceptance. For example, individual opinions will vary about a desirable location for a new high school or the values of a sex education program. Some groups may favor construction of a new throughway; others a mass transportation system. Views of various groups almost surely will differ regarding alternative long-range uses for specific land areas. But decisions must be made. Planners and citizens need concepts and facts indicating the benefits and hazards of alternative choices. Awareness of divergent views enables planners to assemble information and arrange discussions that will help citizens better comprehend decisions compatible with public interest.

Allow time sufficient to reach genuine agreement regarding objectives and work plans. Set tentative target dates, but avoid overly rigid adherence to them. Some people may view such a procedure as intolerably unsystematic. But processes people and organizations use to modify ideas and commit themselves to new working relationships are critical elements of any "system" intended to generate cooperative endeavor. Such processes are different from those that can more arbitrarily be scheduled and controlled in a laboratory or factory.

Usually, numerous unforeseen events and personal reactions create detours on roads to agreement. No one can foresee the precise day or month when consensus will crystalize. Efforts to proceed with work before that stage is reached are likely to be fruitless and to undermine whatever interpersonal confidences are evolving.

Arrange to obtain facts essential for effective planning. Begin with exploration of priority needs, goals and functions. Then identify the specific types of facts needed for precise definitions of needs and goals and for performance of functions. Avoid wasting effort on indiscriminate collection of "data banks" of facts having no definable bearing on needs, goals or functions. All facts are not equally relevant or useful. Ask hard questions about which ones are. Then use agency energies to obtain and provide them in usable forms.

Purposefully activate influences inherent in the processes for making decisions regarding collection and use of facts. Most people recognize the value of facts as a partial basis for precise definition of needs, priorities, feasible alternatives and goals. There is also general awareness that facts are necessary for analysis of functions and for accurate measurement of progress. But equally important, the process of deciding what facts are to be considered affects the unity of interest and working relationships. For example, a group decision to obtain and examine facts regarding substandard housing, neighborhood recreational facilities or family incomes constitutes a group commitment to maintain interest in those matters and intent to consider them. Likewise, group deliberation regarding specific items of facts to be obtained sharpens both their intent and capability to be analytical. Such processes serve well to generate

informed consensus which helps sustain the concerted long-range effort required to implement plans.

The process of making group decisions about public dissemination of facts also influences the interest and solidarity of a work group. For example, when an interagency planning group decides to prepare a brochure or news release reporting facts about population mobility, sanitation or pupils' achievements, that action tends to reinforce their original commitment to work essential for improvement. Placing themselves on public record stiffens their resolution to follow through with sustained effort. Likewise, feedback in terms of news coverage, editorial comment, requests for reports and public discussion provides encouraging evidence their work has public approval and support. Such reassurance is a rewardful satisfaction that impels further effort.

Interagency Planning Concepts

In recent years numerous groups have developed concepts of systems for more effective interagency planning. Necessarily, all of them depend heavily on collection and interpretation of facts essential for precise definition of needs, priorities, resources, feasible alternatives for immediate and long-range action and evaluation of progress. Processes involved in practical application of such concepts are outlined in the following "Processes for Comprehensive Urban Planning."

PROCESSES FOR COMPREHENSIVE URBAN PLANNING

CONCEPTUALIZATION OF NEEDS AND PRIORITIES

Make estimates of major needs--present and foreseeable future--on the basis of available facts, observation and experience

Devise procedures for collection, storage and retrieval of facts necessary for more precise definition of needs, priorities, feasibilities and long-range goals

Make judgments about priorities and sequences of action most likely to yield immediate and long-range results

Assess feasible contributions and working relationships of respective agencies

Inventory resources--physical, organization and financial

Define constraints--political, organizational and financial

Assess feasible alternatives for action in terms of immediate results and contributions to a long-range plan

FORMULATION OF A PLAN

Select and sequence specific work goals--immediate and long-range

Specify procedures for work on priorities

Agree on roles and functions of specific agencies

Formulate citizen participation roles and procedures

Design evaluation criteria and procedures

Arrange for collection, storage and retrieval of relevant facts

Get plan approved by appropriate governing body

IMPLEMENTATION

Select an agency or agencies to administer implementation of plan

Get advice on procedures from citizens' representatives

Design and pursue communication programs to generate support

Collect evaluation data

EVALUATION

Evaluate results and prepare reports

Involve citizens in interpretation of data

Make reports to the public

MODIFICATION

Obtain recommendations from citizens' advisory groups

Modify goals and work procedures

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URBAN PLANNING OBJECTIVES

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No competent social scientist pretends to comprehend all of the human impulses or social and economic forces impelling the long evolution of cities and today's complex patterns of urban life. But history does provide useful records indicating reasons why hundreds of cities have grown, served people well or poorly, and flourished or decayed. Historians note that indiscriminate urban development does not automatically assure qualities of life commensurate with human need, capability or toleration. They caution no modern urban community can be sanguine, that a satisfactory future is invariably assured.

CONTEMPORARY PROSPECTS

Both history and analysis of present day trends show that for better or worse, urbanization is certain to accelerate. Both population growth and use of technology to meet peoples' rising expectations are indications that a steadily larger percentage of the population will seek to live in situations providing access to the employment, services, human relationships and amenities inherent in urban environments.

This does not mean that large and densely populated cities must, or should, become larger or more congested. Indeed, many analysts note the feasibility and desirability of decentralizing industry, commerce and culture. They observe that new transportation and communication developments constantly enlarge

this possibility. Both surely, steadily larger percentages of citizens will live in urban areas comprised of ever more closely interrelated families of cities and counties.

Overall increases in population density and mobility within urban regions presently is confronting all local governmental units and special service districts with a growing array of interrelated interests, needs and problems. Housing, water, waste disposal, transportation, law enforcement, education, recreation and public revenues are examples. In all urban areas local efforts to meet such requirements inevitably will become more closely interrelated. Equally important, population concentrations and new transportation and communication capabilities activate a host of more direct relationships between urban regions and surrounding rural areas.

Growing awareness of these facts has generated renewed thought, and considerable debate, regarding the functions of local boundary lines and governments. With valid historic reason some citizens fear the very complexity of urban circumstances will force centralization that may violate cherished concepts of home rule, and local initiative and responsibility. Many problems are obvious. Schools of thought regarding desirable solutions vary.

The authors believe changes in municipal boundaries and governmental structures are matters to be explored and decided by citizens. The purpose of this document is to contribute to planning procedures that will enhance the benefits of whatever arrangements citizens deem best. The development of such procedures is urgent to enable all local governmental and public service units within an urban area to do a better job of defining common needs and to make mutually

complementary plans. Such procedures are considered major means of increasing the ability of all governmental units to meet emerging needs.

The magnitude and complexities of the above task are obvious. Its enormities are indeed awesome. Immense amounts of thought, discussion and goodwill will be required for honest definition of genuinely mutual interests. The entire process cannot easily, or immediately, be perfected. But a beginning is feasible. Such a beginning should be designed to open minds and to activate public assessment of realistic alternatives. A joint effort to obtain facts that will facilitate enlightened definitions of emerging needs and relationships is proposed as a beginning. Such effort will provide substance for widespread discussion enlarging public awareness and support for well conceived plans.

URBAN COMMUNITY FUNCTIONS

Definition of Functional Areas

Clearly, effective urban planning requires the joint efforts of neighboring cities, counties and, in some cases, states. Many existing boundaries were originally set quite casually by the presence of rivers which were inaccurately perceived as dividing lines. For convenience, others were arbitrarily drawn as straight lines at certain degrees and minutes of latitude. Such historic lines seldom correspond with present day economic, social or governmental functions. Due to modern transportation, communication, industry and commerce the economic and social functions of neighboring governmental units overlap and steadily become more interrelated. Consequently, plans made, or not made, by one governmental unit affect neighboring units, favorably or unfavorably. (20) (41) (46) (55)

Experience demonstrates many major planning needs simply cannot be met by local governments alone. Highways, airports, sewage and waste disposal, water supply, law enforcement and protection against air and water pollution are examples.

Experience also demonstrates that by joint planning of other services and facilities, cities, counties and states can create more mutually beneficial arrangements at lower costs. Examples are housing, community colleges and outdoor recreation.

Growing recognition of these facts is impelling the organization of county planning commissions, regional councils of governments and interstate planning agencies. (50)

Future Feasibilities

Urban planning should give major consideration to what communities can be in the near and foreseeable future. There is need for balanced consideration of immediate needs rooted in past and present developments and of ways those and new needs can best be met by plans for fuller use of new resources and capabilities.

In most communities immediate problems are real. Housing and water supplies are examples. Some next steps are urgent. But piecemeal, short-range alleviation alone may do little except complicate and magnify existing problems. For example, in many growing communities opportunistic side-by-side development of small incompatible housing and industrial areas has resulted later in conditions that impair family life and erode property values. More assurance of satisfactory environments and dependable economic development requires cooperative long-range planning and zoning.

Evidence at hand suggests citizens' values and desires may change at a pace faster than in the past. Recent changes in concepts of recreation and retirement illustrate the extent to which this is true. Fortunately, concern for assessment of future feasibilities and new possibilities and options is growing. (17)

Physical, biological and behavioral scientists, economists and statisticians are combining fruitful efforts to assess trends and to define feasible future choices. Responsible members of such groups also are providing better definitions of the human values and ethical issues providing partial bases for rational choices. They note the benefits derived from planning will be determined largely by how well planners and other citizens consider these matters. They also observe few current social or economic trends appear preordained to continue automatically or indefinitely. Informed people can exercise their judgment and choose any of numerous alternatives. They can change trends and modify arrangements and institutions.

General Economic and Cultural Trends

Effective planning requires sustained consideration of relationships between urbanization and general economic, social and cultural developments. Even a large metropolitan region is not economically self-sufficient or isolated from influence of national and world cultures. Thanks to modern transportation, changes in industrial technique affect the nature of work and commerce in most localities and regions. Due to modern communication, new social objectives and new concepts of political organization generated in one locality quickly activate change in attitudes of many people in other communities. Such influences are also impelling persons and industries to move from one locality to another.

For those reasons the planning roles of state and federal agencies are increasing. Those agencies can provide local and regional planners with facts regarding national and international developments that bear on the plans of all communities. (36) (54)

Interrelationships of Community Functions

A community's physical environment and public services can be, and should be, planned to foster pursuit of all functions that make life satisfactory--production, consumption, family living, government, education, social intercourse, recreation and rest. (56)

As noted in section "Heritage and Purpose," production and exchange of commodities and services and generation of economic income are basic community functions. But plans aimed too exclusively at those functions have too frequently failed to provide satisfactory housing, recreation and education. Planners have an obligation to design arrangements that better enable more citizens to fulfill all major aspects of satisfactory living.

Production and Distribution

Provisions for production and distribution of commodities and services should be major elements of any plan. Those functions are essential and contribute heavily to levels of living in any community. Enlightened planners have evolved numerous zoning concepts that provide space and facilities for various types of manufacture and commerce in locations compatible with satisfactory housing, recreation and cultural pursuits.

Health

Health--physical, mental and emotional--is a right and an obligation. The vigor of a community and the satisfaction its citizens derive from life depend largely on levels of vitality. Adequate provision for sanitation and health services and facilities are major obligations of professionals and laymen engaged in urban planning. Hospitals and clinics adequate for all citizens, and rest homes for the nation's increasing numbers of elderly people are urgent matters requiring immediate consideration. (40)

Personal Living

City plans should give primary consideration to housing. Reasons for doing so are obvious. The quality of life is influenced largely by the satisfactions and emotional security generated by love, affection and intimate personal consideration. Some details of personal relationships deemed satisfactory change with shifts in circumstances and mores. But competent behavioral scientists agree that for the foreseeable future, personal affection and companionship will flourish best in shelters people can call "home." Most people seek some private domain where they can function as families and visit in seclusion with friends of their choice. Adequate housing is a basic means of meeting these basic needs. (1) (13)

Of course, evidence demonstrates good housing alone does not assure a satisfactory or rewarding personal relationship, but an abundance of evidence shows it makes a substantial contribution. Likewise, volumes of dreary facts testify that inadequate housing impairs those relationships. Those same facts affirm that the human costs of such impairments are large for millions of children and adults. (41)

Generally, psychologists and physiologists also agree that at times most people need quiet, rest and a sense of privacy. These qualities have a major bearing on the nature of facilities for family living and repose. Consequently, most city planners and architects suggest community plans that shelter residential areas from needless exposure to noise and crowds. Neighborhood roads leading from highways, cul-de-sacs, parks, green belts and even properly located skyscraper apartment buildings are devices serving that purpose.

Group Relationships

Cities can be planned purposely to facilitate rewardful group associations. Reasons for consideration of this objective are rooted in the nature of man and the processes that nurture civilized human relationships. Individuals have innate need for association with their fellows. Loneliness is onerous. Contact with others enriches experience and provides assurance derived from companionship. Purposeful association also fosters communication essential for crystalization and pursuit of common purpose. It generates mutual regard which fuels more generosity than indifference or hostility. (35)

Cities can, and should, plan for public and private facilities that foster formal and informal sharing of pleasure, experience, judgment and creative interest. Centuries of experience demonstrate that cafes, clubs, parks, playgrounds, theaters, museums, gymnasiums and auditoriums are devices yielding these benefits.

Learning

Learning, knowledge and reason enrich life. Ignorance restricts the capabilities and choices of individuals and communities. Learning is a gateway

to knowledge and insight essential for self-actualization and enrichment of personal and communal life. Reason enables people to utilize knowledge for humanly satisfactory purposes and impels them to do so.

For two centuries Americans have avowed all people are entitled to equal opportunity to acquire the knowledge, insights and capabilities essential for earning incomes and for responsible exercise of personal rights and civic obligations. Growing bodies of evidence indicate the increasing need to make such learning a continuous lifelong process. (23)

Historians and economists observe that widespread education has been a major factor in the economic development of the United States. They also point out this need will increase as operation of modern industries requires increasing percentages of citizens acquire steadily higher levels of training. Likewise, each day brings new evidence of need for insights, values and restraints essential for cooperative endeavor, safety and cleanliness. (7) (14) (32)

Clearly, provisions for adequate education must be a major element of any effective urban plan. But educators are aware adequate schools cannot be planned in isolation from other community services and facilities. They recognize the increasingly close relationships between education, housing, industry, health services, public assistance and recreation. That is the reason for their growing interest in comprehensive planning.

Leisure

Urban plans should give thorough consideration to facilities enriching use of leisure time. Hundreds of individuals and commissions have assessed facts showing leisure time available to most people is increasing. Steadily, the

length of the average working day declines. The number of three-day weekends increases. So do the frequency and length of vacations. Simultaneously, incomes of more families become sufficient to permit larger leisure time expenditures. Economists predict that larger percentages of people will use more time and income for a wider diversity of leisure time activities. Behavioral scientists note the nature of those activities will have immense impact on the very nature of community life. (10)

Consequently, adequate plans must include forward looking provisions for recreation--sports facilities, cafes, libraries, parks, museums, art and music studios, theaters, auditoriums and community centers.

Cultural Diversity

Cultural diversity broadens insight and stimulates creative effort and improvement. Ethnocentrism stultifies discovery, adaptability and growth. Contact with, and respect for, a variety of values encourages adaptability and stimulates creative effort.

Without segregation or ghettos, cities can make physical and organizational plans that foster the cultural contributions ethnic groups desire to make. Ethnic theaters, orchestras and art organizations are examples. These can be major steps toward better intercultural communication.

Contact With Natural Environment

Most people get satisfaction from contact with the natural environments--open space, sky and water, trees and plants. Reasons for this are rooted deeply in eons of human evolution. Cities can be arranged to provide such contact. Options are as diverse as our imagination and values and our will to optimize such benefits.

Within metropolitan areas options range from plans to maintain spacious green belts of open land to provisions for public parks, central city miniparks and family gardens. Within regions large areas of mountains and seashores can be preserved as state or national parks and made accessible by roads and airports. (1)

Proper spacing of high rise office and residential buildings can provide grand vistas of sky, land and sea during hours of work and repose. Towers and malls combining quarters for parking, office work, family living, shopping, education and recreation can reduce daily needs for cross-town transportation and give people a sense of neighborhood belonging. Marina City in Chicago is an example.

Aesthetics

Beauty activates more refined levels of behavior than ugliness. Aesthetic environments enhance living and learning. Beauty evokes regard for environment and a sense of personal dignity. Aesthetic homes, streets, shops, schools, parks and streams constitute sensual evidence that society is worthy of respect and contribution.

Modern architects are providing concepts of design facilitating attractive structures and space arrangements at costs less than those of forcing citizens to endure ugliness. (2) (52)

Cities can be more aesthetically satisfactory. Making them so should be a major goal. Evidence demonstrates ugliness generates indifference, discontent, resentment, demoralization, alienation and hostility. The alienation and protests of slum dwellers illustrate those facts. (33) (48)

Experience indicates both public and private concern can activate large reservoirs of talent and energy for creation and nurture of pleasant physical environments.

Most people have more time and desire to use leisure in ways that enrich their environment. Increasing percentages of people demonstrate enlarged desire to participate in aesthetic endeavor and civic service. Such evidence gives reason to assume public and private planning for cultural facilities can enlarge participation in activities that enhance both personal and community living.

With the guidance of architects and planners, metropolitan regions can develop comprehensive plans providing for aesthetic combinations of structures and open space. Radburn, New Jersey, and Columbia, Maryland, are examples. Zoning and building codes can prevent overcrowding and preserve natural beauty. Use of unsightly street and highway advertising can be restrained. (43)

Activation of individual interest in attractive homes, lawns and parks is equally feasible. The rapid growth of the "do-it-yourself" interests signifies a social force of immense potential for urban planning. Each day millions of men and women demonstrate a fruitful diversity of desire to beautify many aspects of their environments. Male and female, young and old--millions seek opportunity to use their leisure for beautification of personal property. Youth organizations plant trees. Gerontology clubs tend park gardens. Civic groups beautify river banks and hillsides. Urban planning can include provisions for participation and organization designed to activate this massive reservoir of human desire to create satisfactory living environments.

Modern building materials and construction processes challenge old concepts of costs, particularly the common assumption that attractive structures

cost more than ugly ones. Obviously, some materials and processes cost more than others. But at any given cost a single building, or a neighborhood of commercial or residential structures, can be spaced and constructed with designs that are relatively attractive or ugly. Range of choice widens each year. The point is, simply, that at any cost level deemed feasible, competent architects can provide either private or public buyers with designs that uplift instead of depress the human spirit.

Experience also has demonstrated that computation of only initial costs of construction is deceptive. Examples of this illusion are commonplace. Upkeep or purportedly "low-cost," jerry-built homes, offices or factories is higher than for better built ones. To the original cost of "inexpensive" slums--old ones in central cities and new ones in suburbs--must be added the relatively high costs of maintenance, insurance, police protection and "urban renewal." In addition, there is no way to complete the daily human cost of indifference, boredom, involuntary displacement and resentment.

What might be called "the desperation of residential escape" also adds to the financial cost of unsatisfactory housing and unpleasant neighborhoods. On evenings and weekends millions of youth and adults aimlessly "take a ride," "go downtown" or "go out to eat" simply because they seek escape from unsatisfactory housing. Clearly, this accounts in large part for the pitifully aimless expenditures of youth observable any evening on thousands of city streets. As recent events demonstrate, it also accounts in part for costs ascribed to street corner disturbance. It is notable that many others, young and old, with more adequate abodes "would sooner stay home." These facts do not negate the value

of out-of-home diversion, but clearly a large portion of such escape expenditures must be added to the illusionary low costs of unsatisfactory housing.

Costs of alternative housing and neighborhood plans can be made more realistic by use of cost analysis techniques.

CITIZEN PARTICIPATION

In societies "governed by the consent of the governed," citizens have a right and obligation to participate responsibly in formulation of goals and action plans. This right is embodied in constitutional provisions for freedom of speech and press and in legislation requiring governmental agencies to report to boards and the public.

In the United States these principles are as old and fundamental as town meetings in Plymouth Rock. Now, a growing interdependence of individuals and groups implies an ever larger joint responsibility for contribution to decisions, arrangements and work shaping communities that fulfill citizens' needs and aspirations.

Participation in the formal and informal aspects of communal life is a basic mechanism of self-government. Equally important, it generates a sense of personal worth and dignity. It evokes feelings of involvement and identification. This gives people the self-respect derived from seeing that they can make useful contributions to civic affairs. (22)

Since colonial days educators, along with other public servants, have recognized the right of citizens to approve public policy and public service. That principle is embodied in the popular election of governmental officials and boards. Equally fundamental, many public agencies have devised mechanisms providing

for citizen participation in the formulation of goals and policies. Thousands of advisory committees, study groups, forums, town meetings and public hearings are examples. And, of course, simply keeping informed and voting are forms of participation.

Fortunately, citizens are indicating a growing interest in participation in public affairs. To participate in ways that actualize their own best interests, they need access to all of the facts essential for rational definition of needs and alternative possibilities for meeting them. Likewise, informed citizens can provide elected officials and planning agencies with valuable nonstatistical information about attitudes and general reactions to problems and proposals.

Well developed arrangements for various types of formal and informal citizen participation in no way imply that elected officials should use committees or advisors to pass the buck, or to evade their responsibility for decision making.

The historic record of citizen participation indicates that such association with one's fellows broadens an individual's perceptions of desirable goals. It also can reinforce their will to engage in the sustained effort required to pursue goals. (34)

But the record also shows that all participation is not invariably constructive. In many cases, it has been only slightly productive because participants were ill informed. Many poorly informed persons and groups have advocated harmful arrangements. Constantly an irresponsible few make demands and promote proposals that would perpetuate or create conditions imposing injustice on others.

Participation that is beneficial to citizens depends on access to information necessary for accurate definition of needs and feasibilities. Likewise, it

depends on honest intent to consider the needs and rights of all citizens. Responsible participation also implies sincere consideration of diverse views regarding priorities and the benefits of alternative proposals. Uncertainties regarding results make some thoroughly responsible leaders fearful that public participation will activate differences of views, or actions, detrimental to their honest efforts. But few are ready to conclude, that in general, force and compulsion are more desirable than reason and self-discipline.

There are two reasons for putting more effort into dialogue and exploration of ideas and facts clarifying alternative goals and feasibilities. First, that is the most practical procedure. It is the most likely to yield results satisfactory to all, including those who are the least satisfied with existing conditions. Second, in the modern division of labor societies, exercise of force and arbitrary authority are more disruptive than in the past. With or without just reason, even small groups can paralyze a city or a nation simply by refusing to perform essential work. Work stoppages by garbage collectors, truck drivers and hospital aides are examples. The magnitude of recent protests and disruptions indicates the urgent need to facilitate more informed participation. (26)

Some Procedural Guides for Productive Citizen Participation

After thorough appraisal of the contributions and difficulties of 85 community-school study groups in Connecticut, the Governor's Fact-Finding Commission on Education suggested the following procedural "Do's" and "Don'ts" for organization of citizen participation effort.

Do:	Don't:
Expect the job of organizing a study group to take time. More time spent in the beginning will mean less time wasted in the end. Give the project a chance to grow. Give leadership a chance to emerge.	Be in a hurry or rush others into accepting responsibility before they have a chance to find out how much is involved.
Do:	Don't:
Start with temporary officers--maybe as temporary as for one meeting; perhaps a host and/or hostess, instead of a chairman. Take turns keeping notes for the first few meetings. Provide ample opportunity for expression of all views.	Try to elect a slate of permanent officers at the first meeting, or try to choose subjects for study before you know what subjects interest the whole town most.
Do:	Don't:
Give agency personnel opportunity at the outset to suggest how you can be most helpful and to join in your activities. If their cooperation is not immediately forthcoming, keep trying. Be sure they receive notices of all meeting dates. Remember that independence doesn't rule out interdependence.	Fail continuously to seek cooperation from school authorities. Don't forget that cooperation does not mean domination.
Do:	Don't:
Seek out for commendation areas in which your agency is setting an example for others, as well as areas in which there is room for improvement. Be a fact-finding, not a fault-finding group.	Carp, criticize irresponsibly or involve personalities.
Do:	Don't:
Make membership represent your city or region: community and educational interests, business, labor, churches, organizations, youth, racial and national backgrounds, and all geographic areas. Keep meetings open to interested groups and persons. Build a cross-section membership big enough to do the job you outline for yourselves.	Try to do a broad job with only a few chosen members.

Do:	Don't:
Include the opposition. Invite those who disagree with you to participate in the group. Try to get them to accept responsibility in the group.	Be afraid of opposition or avoid those who disagree with you.
Do:	**Don't:**
Clearly define the purpose, policy and scope of your group after the first few meetings. This can be amended later, if the interests of the group broaden.	Tackle the job until you have all agreed on precisely what the job is.
Do:	**Don't:**
Choose your subjects for study with reference to the preferences of the entire membership of the group, plus public opinion as sampled by the membership.	Have subjects for study and discussion chosen by a small committee and foisted onto the rest of the group.
Do:	**Don't:**
Determine the number of officers needed, the number of subcommittees, etc., with reference to the scope of the job you carve out, in all its aspects.	Hold committee elections in a vacuum or emphasize machinery above subject matter.
Do:	**Don't:**
Elect a responsible steering committee that will coordinate and stimulate the work of all subcommittees, and will authorize, with reference to the whole group, the work of each subcommittee.	Let subcommittees go off on individual tangents which may duplicate the work of other subcommittees.
Do:	**Don't:**
Make liberal use of "live" resources in seeking answers to study-group questions. Consult city officials, industry, labor, health and housing authorities, architects.	Rely on printed statistics to provide all the answers.
Do:	**Don't:**
Keep citizens continuously up-to-date on the methods, findings and activities of the group as you progress. Report to the press. Send speakers to meetings. Hold open forums.	Wait until your study is complete to let others know what you are doing.

Do:	Don't:
Be sure final recommendations are based on a factual foundation and represent the views of the entire group in relation to the town. Include study of financial resources which can be tapped to support your recommendations.	Make "wishful" recommendations which are not related to available sources of income or to the needs of the town.
Do:	**Don't:**
Officially share final recommendations with agency directors and municipal authorities before releasing them generally.	Release final recommendations before school authorities have officially examined them.
Do:	**Don't:**
Develop dramatic means of presenting final recommendations to the entire community. Plan definite avenues of action leading to adoption of recommendation.	File your recommendations and forget about them.
Do:	**Don't:**
Consider ways in which an advisory group can be of permanent service.	Consider your job as finished when you have completed your first full study.

Leadership Responsibilities

Productive citizen participation depends largely on the motives and the judgment of its leadership. Here is a list (6) of some functions an effective leader performs to set processes in motion and guide efforts to fruitful results.

He keeps informed about conditions and problems requiring action and provides facts which help others understand them.

He appraises motives which will influence people's response to conditions and problems.

He creates situations and arrangements which encourage those involved to study facts, shape group goals and define ways of reaching them--such as group discussions, staff committees, study groups.

He encourages others to accept leadership roles--to be discussion leaders and committee chairmen, to assemble facts and prepare reports.

He encourages group members to express opinions and demonstrates respect for their opinions. He avoids negative criticism or rejection of opinions and proposals.

He helps groups to define goals and encourages other individuals to do likewise.

He encourages groups to consider possible desirable and undesirable consequences of various proposals.

He helps keep discussion and group work realistic and purposeful.

He helps reconcile conflict and summarizes group thought to get consensus on a practical goal and a practical action plan.

He obtains recognition for those who contribute to group goals.

PUBLIC COMMUNICATION

Effective public communication is a major feature of democratic planning. For more than 2000 years, millions have struggled to broaden individual opportunity and capability for enlightened self-government. Progress has been notable. Unless there is a willingness to suspend that effort, to accept compulsion and to surrender large amounts of individual discretion, widespread capacity for enlightened choice remains essential for realization of plans. Certainly the pursuit of planning goals in the United States depends largely on voluntary compliance and effort. In societies governed by the consent of the governed the success of any plan is determined mainly by what citizens have in mind and what they are willing to support.

As noted above, the quality of public participation depends largely on peoples' access to facts and ideas. Well prepared reports of planning agency

deliberations and actions are a form of leadership which helps generate public understanding, acceptance and support. Reading and discussion are forms of participation. People discuss what they read with others. By those processes they acquire and reinforce each other's interests, form opinions and acquire a will to act. (29) (30) (45)

Nontechnical easy-to-read summaries of reports, fact sheets, discussion guides, conferences and news releases are essential to generate the public understanding and support necessary for actualizing plans. Most civic and professional organizations welcome opportunity to hear and discuss reports of planning agency work. Schools and colleges enroll youth who will be voters in a few years hence. These institutions can help provide an informed citizenry, and their faculties desire to do so. Social science teachers and others seek opportunity to acquaint students with current problems and programs such as those embodied in planning agency reports. To degrees acceptable to planning agencies, educators also welcome opportunities for students to observe, or to participate in, planning processes. Numerous nonschool youth groups seek similar opportunities.

INFORMATION BASES FOR COMPREHENSIVE PLANNING

Effective planning requires access to facts essential for accurate definition of needs, potentials, priorities, resources and feasible alternatives. In technological societies, planning for effective use of resources requires access to facts about complex needs, long-range potentials and next-step feasibilities.

Usually, a purpose can be defined in terms of specific needs to be met. For example, many local and national efforts avow the desire to improve housing, health, recreation and education. Effective plans for proceeding depend largely

on availability of facts indicating neighborhood needs and defining specific types of improvements deemed to be most urgent. Fortunately, steady developments in information science and computer technology constantly increase the availability of useful facts. (3) (21) (53)

Agency administrators and staffs need facts to conceptualize useful goals and priorities for presentation to boards, advisory groups and other citizens. Advisory groups and other citizens have equal need for access to facts. History documents an unhappy record of differences between what administrators and citizens perceive to be satisfactory goals. These differences grow largely from differences in facts available for consideration by each.

With equal access to comprehensive bodies of reliable facts, boards, advisory committees, administrators and other citizens are better able to make fruitful joint decisions about goals. When all concerned have opportunity to ponder "all of the facts," prospects for genuine consensus are enlarged. But when the views of various groups are based on different fragments of inaccurate or incomplete facts, bias, conflict and indecision are the quite predictable results.

Some Major Types of Useful Planning Facts

There is growing awareness of the interrelationships of goals being pursued by agencies engaged in education, economic development, health services, housing, public assistance, public safety and transportation.

So it is logical to ask, "What types of facts will help boards, administrators and laymen plan and implement productive work programs and relationships for such agencies?"

Of course, at present, no one has insight sufficient to conceive systems of facts fully reflecting all human needs, potentials or aspirations. Concepts and measures of those matters are constantly being refined. But recent developments in behavioral and informational sciences substantially increase our capacity to develop more adequate systems. Fuller utilization of these emerging capabilities can help public and private agency boards and administrators, along with other citizens, combine their judgment to define and pursue more satisfactory goals.

Numerous analyses indicate that most agencies need facts regarding:

Present and projected population

- Size
- Socioeconomic characteristics
- Mobility

Projections of economic development

Types of employment

Present and projected income

- Ranges and averages of family earnings

Housing

Health service

Incidence of disease and disability

Recreation facilities and programs

Cultural and educational facilities

Juvenile delinquency

Crime

Zoning

Transportation facilities and plans

Tax bases and structures

Revenues

Such facts can be efficiently assembled most by a regional planning agency and made accessible to all local governments and service agencies.

In addition to the above items, educational planners and agencies planning related services need facts about:

Enrollments

Pupil characteristics

Costs

Changing sources of school revenue

Local
State
Federal

Pupil achievements

Pupil health deficiencies

Dropout rates

Pupil dismissals

Attendance and truancy rates

Obviously, such facts can best be assembled by local school systems. Local systems within metropolitan areas should arrange to obtain such facts on a uniform basis and feed them into a comprehensive regional information system where they will be accessible to other agencies responsible for housing, health, recreation and public assistance services.

Such facts probably can be obtained by most school systems at no extra cost by slightly modifying existing pupil and financial accounting procedures.

Geographic Bases

Competent planners generally agree such facts should be obtained and stored in ways to make them useful for analysis of conditions and needs in specific neighborhoods. This implies use of some functional geographic coordinate "grid" system. (53)

Storage and Retrieval System

Modern information science should be utilized to store planning information in readily retrievable forms. However, concepts of computerized information systems vary. So do cost estimates. Costs of ideal systems and alternatives should be realistically assessed. If costs of an ideal system are deemed excessive, that is no reason for delaying development of procedures to make essential facts accessible by less automated processes. With advice from computer programmers, facts can now be collected in forms suitable for later computer processing when funds are available.

Protection for Personal Privacy

Planners have no need for facts that would violate individual privacy. They need only facts showing general conditions, achievements and deficiencies within geographic grids. There is no need for such facts to be collected, stored or released in manners that identify individuals or families. Facts helpful to teachers, counselors and social workers on individual problems are a separate category. (19)

The section on "Guidelines for Development of an Information System for Urban Community Planning" lists matters to be considered in development of such a system.

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PLANNING MODELS

Kenneth H. Hansen

Numerous persons and groups have developed models of planning objectives and processes. Of course, models that do not accurately assess all of the realities involved in planning can be pretentious and misleading. But carefully designed models can provide frames of reference for thought, decision and organization of effort.

Models are not plans or rigid cookbook formulas for preparing plans. But models can provide general concepts of major elements of planning processes and of relationships between elements. Such concepts provide frameworks for purposeful and orderly consideration of the specific circumstances, resources and processes to be considered when devising a plan for a particular purpose. By comparing a number of such models, planners can analyze the relative usefulness of alternatives and make deliberate choices of those deemed best for their specific purposes.

Comprehensive school-community planning requires school administrators and directors of other agencies to make joint decisions about just how their respective planning concepts and processes can be related practically.

As noted in the section "Heritage and Purpose," in recent decades various groups of public servants have been searching for more adequate planning guides. Awareness of ideas that have evolved will help representatives of all agencies make mutually satisfactory decisions about closer working relationships.

For those reasons elements of some major planning models evolved by school administrators are described below. These descriptions are intended to help planners in all public service agencies consider processes to implement concepts such as those outlined in "Processes for Comprehensive Urban Planning" on page 17.

Models are especially useful because they provide alternative bases of choices to be made, some of which are not always mutually exclusive, but do require thought and decision. Thus, models do not restrict planning effort; rather, they provide a wider range of alternatives.

MODELS OFTEN USED IN PLANNING

Elements of models found useful in planning are merely described here. Neither advocacy nor disapproval is implied. Rather, the models are analyzed--for display purposes only--to see how various planning specialists and technicians have tried to arrange the concepts and procedures according to different sets of assumptions and to implement two different kinds of purpose or procedure.

No brief document could detail all the different planning models in common and productive use. But it is possible to summarize the characteristics of three rather distinct types: the descriptive, the problem solving and the "systems" approaches. Three of the many kinds of strategic approaches also can be examined in the theories of some planners who have thought carefully and written clearly about planning strategies. It also seems worthwhile to describe some major kinds of mechanisms that have proved useful for planning in different situations.

Therefore, the section which follows gives specific attention to different outlooks, different strategies and different mechanisms which can serve as the basis for developing planning models.

Outlooks

Descriptive

Until recently, many planning models were based largely on concepts and descriptions of the total administrative processes. They relied primarily on enumerating the parts of the planning process itself.

One such model has gone by the unwieldy acronym POSDCORB. (5) This was an attempt to describe the entire administrative function as being embodied in seven descriptive job elements: planning, organizing, staffing, directing, coordinating, reporting and budgeting. Even though planning is isolated as a single element, a great deal of planning is done in each of the other categories of administrative tasks. The idea was, essentially, that if a person put down clearly in some logical order, all of the elements of the administrative process, the result would be an administrative plan.

Another descriptive model for the planning process relies simply on enumeration of the competencies one would expect of a planner. These generally are listed in terms of overall competencies expected of any administrator--flexibility, sensitivity, a democratic outlook and high intellectual capacity. Based on the belief these were the essential administrative competencies, it was assumed planning was simply a matter of utilizing these administrative competencies in the right way and at the right time.

A third descriptive outlook enumerates qualities of the plan itself: "long-range," "comprehensive," "well documented" and "thorough." It was assumed if the plan had these qualities, it automatically would be good and effective.

Such descriptive outlooks are useful indicators of some elements of planning. They also suggest qualities of effective planners. But descriptive approaches have been superseded largely by others described below because they lack real problem orientation and fundamental incentive to action.

Problem Solving

Another of the general planning outlooks is characterized by attempts to define the planning process itself. This tends to generate planning models, largely in terms of problem solving processes. For example, Griffiths (in an excellent model of the entire administrative process) emphasizes the problem solving method of planning consists essentially of setting up "testable hypotheses" and then seeing how they work. (4)

Closely related to the testable hypotheses model is the one which embraces the use of general scientific method: careful description of the problem, collection of data, formulation and testing of hypotheses, and evaluation of the results against previously stated criteria. The essential difference between this and the testable hypotheses method is simply a broader application of methodology borrowed largely from the physical sciences.

The specific problem solving approach which does not expand into an elaborate model is probably the most common outlook used in empirical planning. Without trying to devise a long-range plan, to collect a significant amount of new data or to evaluate against any set of rigid criteria, such planners simply say,

"Here is something that needs to be done, an action that needs to be taken or a difficulty to be overcome. What can I do to get the problem solved and to get the job done?" This rather shallow empirical outlook is characteristic of much so-called educational planning.

"Systems" Approaches

One of the most common outlooks now widely endorsed and given at least lip service bears the generic name of the "systems" approach. Processes embodied in various systems approaches are stated in various ways but, in general, the emphasis is on a relatively rational and sequential attempt to envision and describe any problem as a part of a larger system. The subparts are called subsystems--all of the subsystems being further broken down into sub-subsystems. This approach, then, whatever specific form it may take, is essentially an outlook that sees any enterprise, with its attendant problems and possibilities, as a system to be plotted and charted. Subsystems can be rearranged or rescheduled in a variety of patterns.

At least three well known models embody parts or all of a generalized systems outlook. The first is known by the familiar acronym PERT, the initials for Program Evaluation and Review Technique. Its essential aim is to set forth the goals of any program in a clear-cut, sequential, orderly arrangement of a subsystem within an overarching total system. Then, program elements must be delineated one by one, carried out and evaluated and reviewed at every step before the next step is undertaken. (7)

A similar "systems" approach is PPBS, or Planning, Programming, Budgeting System. Its essential contribution is application of a systems outlook

by means of a careful measurement of inputs and outputs of each subsystem. Judgments about alternative plans and programs are made largely in terms of cost/benefit ratios. (8)

A third "systems" approach, the Critical Path Method, is an offshoot of PERT. In this system the planner makes a graphic analysis of the network of interdependent and interrelated activities and functions for which he is attempting to plan:

> A CPM model is essentially a "graphic plan of action" providing an intelligible, visual picture of the goals to be achieved and their interrelationships. It facilitates the selection of a critical route to be followed to reach these goals. CPM also permits the identification of possible obstacles and delays before they actually occur. The critical path approach facilitates logical thought by permitting the administrator, the decision maker, to recognize more fully the relationships of the parts to the whole... in applying this form of CPM, a program is portrayed in symbolic terms as a network of interrelated activities... in one sense, a CPM network is like a roadmap. Once the various connections have been drawn, a critical route can be determined and progress can be followed more easily by measuring it against a list of key checkpoints or milestones. (1)

This description of the CPM's use of detailed, visual outline may seem at first glance to be rather complex. But the idea of following a designated path of program effort through the interrelated network of inputs and outputs is, in essence, a very useful concept.

Strategies

In attempting to distinguish among the various strategies suggested for the planning models, ultimate aim of all planning--bringing about effective change--must be kept in mind. The strategies used in planning are intrinsically related to the strategies used for effecting change which is essential for development or improvement.

Chin's Analysis of Strategies

Chin has summarized a number of the studies on the strategies, techniques and tactics for planning constructive change. From his own synthesis he has conceptualized three major types of strategies. The first, the "empirical-rational" type, is based on "...reason and utilitarianism. The change to be effected is demonstrated to be desirable and effective and then brought to the attention of the potential changee. Because the change is reasonable or because he sees he can gain from using this new form of action, he adopts it." (2)

Chin's second classification of planning/change strategy is what he calls the "normative-reeducative" type, which is essentially a method of using a change agent to activate forces within the "client system" to alter the system itself. The emphasis could be expressed as one of "people" technology rather than "thing" technology. The intention is to reeducate the changee, or the client system, to produce an "unshackling of the creativity" of the persons in the organization to actualize planned change. (2)

Chin calls his third classification "power strategies." "In the most general of terms," he says, "the imposition of power alters the conditions within which other people act by limiting the alternatives or by shaping the consequences of their acts or by directly influencing and controlling actions. The basic process for the changee is compliance and submission." (2)

Chin's own preference is clearly for the normative-reeducative strategy, which emphasizes involvement of the people in the planning process to permit them to change their own outlooks and desires--in a sense, reeducate themselves to new norms and, thus, creatively innovate in ways that bring about the ends envisioned by the plan they themselves have created.

The Clark-Guba Model

Although Chin uses the model developed by Clark and Guba as an illustration of one of the empirical-rational approaches, it has been discussed so widely it seems to stand out as a separate strategy for planning for change. Essentially, Clark and Guba suggested planning for changes in education involves three major steps: Development, including invention and design of new ways of doing things; Diffusion, which includes the dissemination and demonstration of the new ways of doing things; and Adoption, which includes trial, installation and institutionalization of the change, often by adapting rather than merely adopting. Critics have suggested the Clark-Guba model is extremely useful as a basic conceptualization, but in many practical situations the three phases cannot be so distinctly separate as the model implies. The series of events constituting acceptation and implementation usually overlap and interlock.

A Synthesized Strategy

In practice, strategies for planning which lead to effective change probably cannot be clearly separated or individually judged. (6) Usually, interrelated combinations of several strategies are most useful. In most cases there is a need for consideration of at least three kinds of strategies: the psychological strategies, for bringing about changes in attitude and behavior of individuals; the technical strategies, for phasing sequential steps of change from initial development through final adoption; and the organizational strategies, for necessary rearrangement of organizational structures and functions to maximize the likelihood work essential for getting results will be done.

Mechanisms

No plan can be implemented without effective mechanisms for pursuit of essential work. In education the extreme pluralism and variety of the financial, governmental and operational systems called "the American education system" are so varied no single type or combination of mechanisms will be equally appropriate for all localities or states. Organizational patterns and assignments must be tailored to fit each case. (3) Similar variations exist in the structures of agencies responsible for planning other aspects of community services.

The planning mechanism at the state level, for example, could be an adjunct of the governor's office, a part of the legislative research council, a special planning commission set up under the U. S. Department of Housing and Urban Development or a function parcelled out among separate administrative agencies. Within such a structure educational planning could be done in the state department of education, transportation planning done in the state highway department, and so forth. Likewise, at the local level, responsibility for educational planning could be assigned to a department of a local municipal planning authority or a metropolitan area planning council. To varying degrees educational planning responsibilities can be centralized in the superintendent's office--or decentralized to involve principals and teachers.

Mechanisms for effective planning depend largely on the particular form of administrative organization that presently exists. Morphet (7) has analyzed the differences between what he calls "monocratic" and "bureaucratic" administrative patterns, as opposed to more decentralized ones. He describes the latter as characterized by terms such as "pluralistic" and "collegial." Those

adjectives imply a less highly structured type of administrative organization. Planning mechanism suited to decentralized and centralized organizations differ.

Another way of noting the differences of organizational structure which affect planning mechanisms is to contrast the relatively "open" with the relatively "closed" school system--the line and staff type of organization with one based on a more democratic form of administrative decision making. Organizational charts provide clues to such differences. Some charts are "flat" with authority spread out broadly. Others are "tall" with the authority running directly to the top of the pyramid.

Obviously, it would be impossible to say just how a planning organization or planning unit would be appropriate or inappropriate in itself. Clearly, the appropriateness or inappropriateness of any organization for planning depends largely on the kind of general organizational pattern, administrative structure and assignment of responsibility found in a given school system or any other entity of the educational or total governmental enterprise. Decisions about assignment of various planning responsibilities must give consideration to the existing structure of educational administration and governance as a whole--unless there is a desire to change that structure before planning begins.

REQUIREMENTS AND OPTIONS

Analysis of a number of models of planning outlooks, strategies and mechanisms provides the planner with more options of combinations that appear to best fit a particular need and situation. His freedom is not complete, however. Choice of any option involves consideration of elements essential to any plan: priorities, alternatives, means and implementation.

Priorities

Regardless of the model used, first things must be done first; major goals must be given precedence over minor ones. Any model requires definition of priorities and some tentative time schedule. When this is done, financial priorities will emerge clearly.

Alternatives

If planners are to provide decision makers with real alternatives, accurate analysis of these alternatives is essential. Merely stating alternatives without analyzing their consequences does not permit rational choice. Consequential analysis may be done by application of logic or by use of forecasting techniques including various forms of computer simulation. In all cases facts regarding potential benefits, hazards and costs are primary. "Games" in which the scenarios are played out to illustrate consequences can be helpful. So can the combined judgments of experts as used in the Delphi forecasting technique. But all alternatives must be analyzed in terms of their ultimate consequences.

Means

A means must be established to plan and carry plans to fruition. Under any model a communication system effectively must link all of those involved in the planning and execution of the plans. Involvement must include as many people affected by the plans as possible. This does not imply administrators have no individual responsibility for decision making. Most models give them such responsibilities. But many models provide for peer group formulation of policy to be implemented by administrators. (7) Responsibility must be assigned and shared. Everybody needs to know who does what. For example, one group

can develop policy plans and another group can develop specific project plans, but it is inefficient for both groups to try doing the same thing at the same time. The usual result is confusion and impairment of planning.

Implementation

Plans can be implemented in a number of ways. Implementation usually requires adaptation of many of the parts of the subplan, rather than adoption of an entire plan. Implementation is not complete until the plans have been put through the processes of legislation and appropriation to provide the support needed for effecting the plans. And finally, implementation requires consent to change, a reasonable consensus about what that change should be, and a compromise on priorities and processes by persons who must compete for allocation of scarce resources.

Support Systems

Finally, there can be no planning under any model that does not provide for the support systems for the planning and implementation. Money and manpower are needed. Data must be provided as bases for planning and for evaluation of progress.

Evaluation

Although some planning models seem to suggest the planning process can be separated from the process of evaluation, such a separation is neither reasonable nor practical. Planners and decision makers, working in concert, cannot methodically develop or carry through any plan without systematic assessment of results. Evaluation indicating the soundness of plans and desirable modifications is an essential phase of any model.

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GUIDELINES FOR DEVELOPMENT OF AN INFORMATION SYSTEM FOR URBAN COMMUNITY PLANNING

Lyndon R. Musolf

Modern behavioral and political sciences provide a growing body of useful concepts of human needs and public service functions. Likewise, swift developments in information science steadily enlarge the ability to obtain and process whatever facts are deemed useful for urban planning.

No single information system can serve all of the varying needs and objectives of all urban areas. But design of any system that will actually serve well-defined purposes requires consideration of technical feasibilities, costs and philosophical issues involved in its use.

The following outline sets forth basic matters that must be considered in development of any system designed to meet the specific needs of a specific urban area.

CHARACTERISTICS OF AN INFORMATION SYSTEM

It must be distinguished from data processing--which is a narrower form dealing with the automatic handling of low-level clerical chores

It is an organized method of using data for a specific purpose; e. g., decision making in management or planning

It will result only from a planned program that is pragmatic, comprehensive, integrated and developed according to a time phased schedule

COMPONENTS OF AN INFORMATION SYSTEM

Collection and Input--a form that lends itself to translation and transmission

Storage--temporary or permanent data location

Processing--data manipulation in accordance with established rules (programs)

Retrieval and Output--accessibility of processing results or status of stored data

Communication--effective, accurate movement of processed data to utilization points

Analysis--utilization plus continual review of applicability for intended purposes

GENERAL GUIDELINES FOR ESTABLISHING THE SYSTEM

Data should only be included for an established or recognized use

Sample data input should be utilized where this will suffice

Input method must reflect use and may result in multiple entry

Accessibility must reflect frequency of use

Input frequency must reflect user's needs and retrieval pattern

System design must be geared to immediate future needs, rather than present needs

System design must be coordinated with existing systems

CRITERIA FOR A COORDINATED SYSTEM

It must be flexible, lending itself to expansion or redesign

It must be related to the operating processes of the participants and contributors

It must be user oriented (the system must not become an end in itself)

Coordination should result in added benefit to contributors

Confidentiality of data must be recognized and protected

Available financial resources must be recognized in the planning stage

Support of heads of participating agencies is essential

Compatibility with other systems, e.g., Bureau of Census programs, is desirable

FUNDAMENTAL ISSUES

Scope

Person oriented, i.e., based on a number file (social security, for example) or a name file

Location oriented, i.e., using grid coordinates or street numbers

An amalgam of the two (while more difficult, preferred for purposes of community planning)

Considerations in the Definition of Area

"Natural" boundaries

Population distribution and spread

Agency boundary lines

Data availability and collectability

Relationship to other areas (economic, linking facilities, overlapping)

Critical Information Areas

Physical data

Location base

Existing assessor information

Land use--two digit system

Geographic characteristics including weather

Ownership characteristics

- Condition of improvements
- Transportation and other service systems

Human factors

- Population location and characteristics (family size, ages, sex, race)
- Employment and income
- Measures of living standard
- Voter registration and election results

Agency records

- Schools
- Welfare--entire range
- Protection services (police, fire, inspections)
- Utilities and services

Data Collected

Problem areas

- Expensive, slow and difficult to develop
- Selection based on known, valid purposes prior to practical utilization
- Later recovery of data initially excluded
- Practicality of using the sample method
- Compatibility of existing data
- Blending of data collection into normal agency operations
- Training and retraining needs
- Feasibility of remote input-output
- Maintenance of flexibility

Human error factor in data compilation (for collection)

Assurance of accuracy

Control of the System

Information Security

Technical problems

Controlled access, even with remote units, now only a matter of cost and convenience

Varied limits on retrievability possible even where input is total

Data may be more secure than if kept manually

Administrative problems

Determination of authorized use

Restriction of unauthorized use

Legal problems

Use of private (confidential) data

Duplication of records in custody of agencies

Personal Privacy and Individual Human Dignity

Political problem

Positive or negative political weapon

Public relations problem

Public acceptance of the system